Davis O'Brien

103337

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

SEARCH REQUEST FORM

Requestor's Name: Kathleen Kerr Campbell (Rook)

Serial Number: 09/911,125

Date: 5/29/04 (15:15)

Phone: 272-4370

Art Unit: 1614

filed - 1/23/01

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevent citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevent claim(s).

Please search the compound of claim 1 in a method to prevent or treat atherosclerosis caused by noise

Thanks
Liliana

STAFF USE ONLY

Date completed: 6-3-04

Searcher: BCB

Terminal time: 50

Elapsed time: prep 05

CPU time:

Total time:

Number of Searches:

Number of Databases:

Search Site

_____ STIC

_____ CM-1

_____ Pre-S

Type of Search

_____ N.A. Sequence

_____ A.A. Sequence

__1__ Structure

_____ Bibliographic

Vendors

_____ IG

600 STN

_____ Dialog

_____ APS

_____ Geninfo

_____ SDC

_____ DARC/Questel

_____ Other

PTO-1590 (9-90)

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=> fil reg; d stat que l4
FILE 'REGISTRY' ENTERED AT 17:17:01 ON 03 JUN 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:     2 JUN 2004  HIGHEST RN 688737-01-1
DICTIONARY FILE UPDATES:    2 JUN 2004  HIGHEST RN 688737-01-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

L2                  STR
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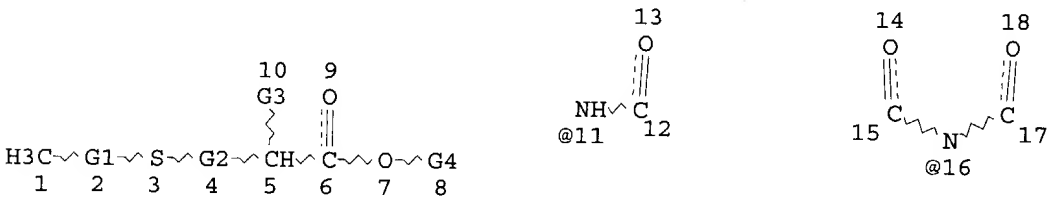


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REP G1=(0-3) CH2
REP G2=(1-3) CH2
VAR G3=NH2/11/16
VAR G4=H/C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  18

STEREO ATTRIBUTES: NONE
L4          21619 SEA FILE=REGISTRY SSS FUL L2

100.0% PROCESSED 340464 ITERATIONS                 21619 ANSWERS
SEARCH TIME: 00.00.04
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=> fil capl; d que nos l19; d que nos l20; s l19 or l20; fil uspatf; d que nos l30; fil
medl; d que nos l34; fil embase; d que nos l38
FILE 'CAPLUS' ENTERED AT 17:17:27 ON 03 JUN 2004
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```



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FILE COVERS 1907 - 3 Jun 2004  VOL 140 ISS 23
FILE LAST UPDATED: 2 Jun 2004  (20040602/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE


L2              STR
L4          21619 SEA FILE=REGISTRY SSS FUL L2
L8          61493 SEA FILE=CAPLUS ABB=ON  L4
L9             40 SEA FILE=CAPLUS ABB=ON  ACOUSTIC/OBI(L) TRAUMA?/OBI
L10          2507 SEA FILE=CAPLUS ABB=ON  HEARING/OBI
L11          1097 SEA FILE=CAPLUS ABB=ON  L10(L)(LOSS?/OBI OR IMPAIR?/OBI)
L12           245 SEA FILE=CAPLUS ABB=ON  TINNITUS/OBI
L15             1 SEA FILE=CAPLUS ABB=ON  OTOXIC?/OBI
L18          1030 SEA FILE=CAPLUS ABB=ON  OTOTOXIC?/OBI
L19            22 SEA FILE=CAPLUS ABB=ON  L8 AND (L9 OR L11 OR L12 OR L15 OR
                  L18)



L2              STR
L4          21619 SEA FILE=REGISTRY SSS FUL L2
L8          61493 SEA FILE=CAPLUS ABB=ON  L4
L13          1329 SEA FILE=CAPLUS ABB=ON  DEAFNESS/OBI
L14         23670 SEA FILE=CAPLUS ABB=ON  NOISE/OBI
L16          8297 SEA FILE=CAPLUS ABB=ON  EAR/CT
L20             8 SEA FILE=CAPLUS ABB=ON  L8 AND (L16 OR L13) AND L14



L39            26 L19 OR L20


FILE 'USPATFULL' ENTERED AT 17:17:27 ON 03 JUN 2004
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 3 Jun 2004 (20040603/PD)
FILE LAST UPDATED: 3 Jun 2004 (20040603/ED)
HIGHEST GRANTED PATENT NUMBER: US6745393
HIGHEST APPLICATION PUBLICATION NUMBER: US2004107471
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CA INDEXING IS CURRENT THROUGH 3 Jun 2004 (20040603/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 3 Jun 2004 (20040603/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L2              STR
L4          21619 SEA FILE=REGISTRY SSS FUL L2
L21          7505 SEA FILE=REGISTRY ABB=ON  L4 AND USPATFULL/LC
L22          4775 SEA FILE=USPATFULL ABB=ON  L21
L23            25 SEA FILE=USPATFULL ABB=ON  (ACOUSTIC(L) TRAUMA?)/IT,TI,AB,CLM
L24            88 SEA FILE=USPATFULL ABB=ON  (HEARING(L)(LOSS? OR IMPAIR?))/IT
L25           601 SEA FILE=USPATFULL ABB=ON  (HEARING(2A)(LOSS? OR IMPAIR?))/TI,A
                  B,CLM
L26            32 SEA FILE=USPATFULL ABB=ON  OTOTOXIC?/IT,TI,AB,CLM
L27         56843 SEA FILE=USPATFULL ABB=ON  NOISE/IT,TI,AB,CLM
L28           854 SEA FILE=USPATFULL ABB=ON  EAR/CT
L29           116 SEA FILE=USPATFULL ABB=ON  DEAFNESS/IT,TI,AB,CLM
L30             8 SEA FILE=USPATFULL ABB=ON  L22 AND ((L23 OR L24 OR L25 OR L26)
                  OR (L27 AND (L28 OR L29)))
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FILE 'MEDLINE' ENTERED AT 17:17:27 ON 03 JUN 2004

FILE LAST UPDATED: 2 JUN 2004 (20040602/UP). FILE COVERS 1951 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details. OLDMEDLINE now back to 1951.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L2              STR
L4          21619 SEA FILE=REGISTRY SSS FUL L2
L31            74 SEA FILE=REGISTRY ABB=ON  L4 AND MEDLINE/LC
L32         29115 SEA FILE=MEDLINE ABB=ON  L31
L33          4182 SEA FILE=MEDLINE ABB=ON  HEARING LOSS, NOISE-INDUCED/CT
L34             3 SEA FILE=MEDLINE ABB=ON  L32 AND L33


FILE 'EMBASE' ENTERED AT 17:17:27 ON 03 JUN 2004
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 FILE COVERS 1974 TO 28 May 2004 (20040528/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


L2              STR
L4          21619 SEA FILE=REGISTRY SSS FUL L2
L35            36 SEA FILE=REGISTRY ABB=ON  EMBASE/LC AND L4
L36         21887 SEA FILE=EMBASE ABB=ON  L35
L37          1543 SEA FILE=EMBASE ABB=ON  NOISE INJURY/CT
L38             1 SEA FILE=EMBASE ABB=ON  L36 AND L37


=> dup rem l39,l30,l34,l38
FILE 'CAPLUS' ENTERED AT 17:17:41 ON 03 JUN 2004
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FILE 'MEDLINE' ENTERED AT 17:17:41 ON 03 JUN 2004

FILE 'EMBASE' ENTERED AT 17:17:41 ON 03 JUN 2004
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PROCESSING COMPLETED FOR L39
PROCESSING COMPLETED FOR L30
PROCESSING COMPLETED FOR L34
PROCESSING COMPLETED FOR L38
L40            34 DUP REM L39 L30 L34 L38 (4 DUPLICATES REMOVED)
                  ANSWERS '1-26' FROM FILE CAPLUS
                  ANSWERS '27-31' FROM FILE USPATFULL
                  ANSWERS '32-33' FROM FILE MEDLINE
                  ANSWER '34' FROM FILE EMBASE

=> d ibib ed abs hitstr 1-31; d iall 32-34; fil hom

L40  ANSWER 1 OF 34  CAPLUS  COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER:         2003:796308  CAPLUS
DOCUMENT NUMBER:          139:286365
TITLE:                    Methods for preventing and treating loss of balance
                          function due to oxidative stress
INVENTOR(S):              Kopke, Richard D.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S.
                          Pat. Appl. 2001 7,871.
```

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003191064	A1	20031009	US 2003-401682	20030331
US 2001007871	A1	20010712	US 2001-766625	20010123
US 6649621	B2	20031118		

PRIORITY APPLN. INFO.: US 2001-766625 A2 20010123
US 1997-69761P P 19971216
US 1998-126707 A2 19980731

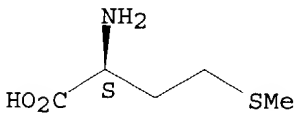
ED Entered STN: 10 Oct 2003

AB The present invention provides methods for preventing and treating loss of, or impairments to, the sense of balance. Specifically, the invention provides methods for preserving the sensory hair cells and neurons of the inner ear vestibular app. by preventing or reducing the damaging effects of oxidative stress by administering an effective amt. of the following therapeutic agents: antioxidants; compds. utilized by inner ear cells for synthesis of glutathione; antioxidant enzyme inducers; trophic factors; mitochondrial biogenesis factors; and combinations thereof. Acetyl-L-carnitine, D-methionine, and .alpha.-lipoic acid prevented loss of inner ear function and hair cell loss in chinchillas stressed with loud noise.

IT **63-68-3**, L-Methionine, biological studies **348-67-4**, D-Methionine
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(used in inner ear cells for synthesis of glutathione; antioxidants and other agents for preventing and treating loss of balance function due to oxidative stress)

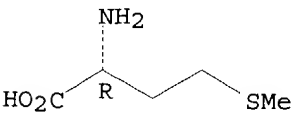
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



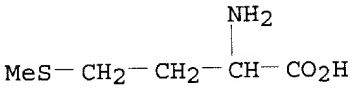
L40 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2002:123601 CAPLUS
DOCUMENT NUMBER: 136:145293
TITLE: Therapeutic use of D-methionine to reduce the toxicity of **noise**

INVENTOR(S): Campbell, Kathleen C. M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. 6,265,386.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002019443	A1	20020214	US 2001-911195	20010723
US 6187817	B1	20010213	US 1997-942845	19971002
US 6265386	B1	20010724	US 1998-57065	19980408

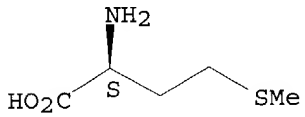
PRIORITY APPLN. INFO.: US 1997-942845 A2 19971002
US 1998-57065 A2 19980408
US 1996-27750P P 19961003

OTHER SOURCE(S): MARPAT 136:145293
ED Entered STN: 15 Feb 2002
AB Methods of preventing or reducing hearing or balance loss and damage to ear cells in patients who have been exposed to toxic levels of noise are provided. These methods comprise administering an effective amt. of a methionine protective agent, such as D-methionine, prior to, simultaneously with, or subsequently to exposure to noise. Combinations of these time periods can also be employed.
IT **59-51-8**, Methionine **63-68-3**, L-Methionine, biological studies **348-67-4**, D-Methionine **1319-79-5** **13073-35-3**, Ethionine **29908-03-0**, S-Adenosyl-L-methionine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic use of D-methionine to reduce **noise** toxicity)
RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)



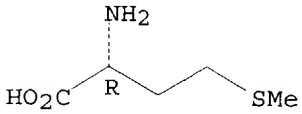
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

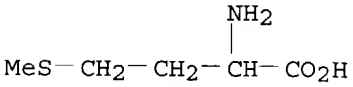


RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



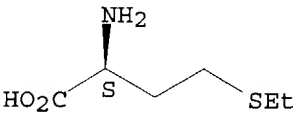
RN 1319-79-5 CAPLUS
CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)



D1—OH

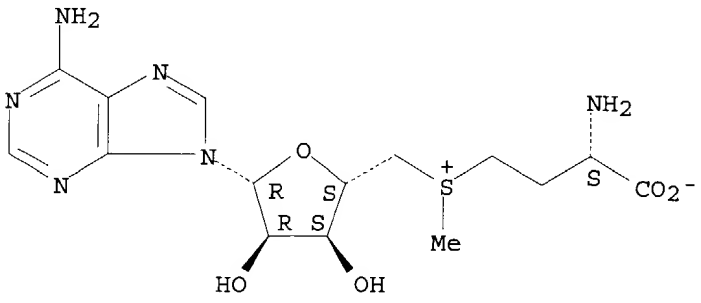
RN 13073-35-3 CAPLUS
CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 29908-03-0 CAPLUS
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2002:738271 CAPLUS
DOCUMENT NUMBER: 138:396100
TITLE: Enhancing Intrinsic Cochlear Stress Defenses to Reduce **Noise**-Induced **Hearing Loss**
AUTHOR(S): Kopke, Richard D.; Coleman, John K. M.; Liu, Jianzhong; Campbell, Kathleen C. M.; Riffenburgh, Robert H.
CORPORATE SOURCE: Dep. Defense Spatial Orientation Center, Naval Medical Center San Diego, San Diego, CA, USA
SOURCE: Laryngoscope (2002), 112(9), 1515-1532

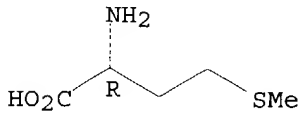
CODEN: LARYA8; ISSN: 0023-852X
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Sep 2002

AB Oxidative stress plays a substantial role in the genesis of noise-induced cochlear injury that causes permanent hearing loss. We present the results of three different approaches to enhance intrinsic cochlear defense mechanisms against oxidative stress. This article explores, through the following set of hypotheses, some of the postulated causes of noise-induced cochlear oxidative stress (NICOS) and how noise-induced cochlear damage may be reduced pharmacol. (1) NICOS is in part related to defects in mitochondrial bioenergetics and biogenesis. Therefore, NICOS can be reduced by acetyl-L-carnitine (ALCAR), an endogenous mitochondrial membrane compd. that helps maintain mitochondrial bioenergetics and biogenesis in the face of oxidative stress. (2) A contributing factor in NICOS injury is glutamate excitotoxicity, which can be reduced by antagonizing the action of cochlear N-methyl-D-aspartate (NMDA) receptors using carbamathione, which acts as a glutamate antagonist. (3) Noise-induced hearing loss (NIHL) may be characterized as a cochlear-reduced glutathione (GSH) deficiency state; therefore, strategies to enhance cochlear GSH levels may reduce noise-induced cochlear injury. The objective of this study was to document the redn. in noise-induced hearing and hair cell loss, following application of ALCAR, carbamathione, and a GSH repletion drug D-methionine (MET), to a model of noise-induced hearing loss. This was a prospective, blinded observer study using the above-listed agents as modulators of the noise-induced cochlear injury response in the species Chinchilla laniger. Adult C. laniger had baseline-hearing thresholds detd. by auditory brainstem response (ABR) recording. The animals then received injections of saline or saline plus active exptl. compd. starting before and continuing after a 6-h 105 dB SPL continuous 4-kHz octave band noise exposure. ABRs were obtained immediately after noise exposure and weekly for 3 wk. After euthanization, cochlear hair cell counts were obtained and analyzed. ALCAR administration reduced noise-induced threshold shifts. Three weeks after noise exposure, no threshold shift at 2 to 4 kHz and <10 dB threshold shifts were seen at 6 to 8 kHz in ALCAR-treated animals compared with 30 to 35 dB in control animals. ALCAR treatment reduced both inner and outer hair cell loss. OHC loss averaged <10% for the 4- to 10-kHz region in ALCAR-treated animals and 60% in saline-injected-noise-exposed control animals. Noise-induced threshold shifts were also reduced in carbamathione-treated animals. At 3 wk, threshold shifts averaged 15 dB or less at all frequencies in treated animals and 30 to 35 dB in control animals. Averaged OHC losses were 30% to 40% in carbamathione-treated animals and 60% in control animals. IHC losses were 5% in the 4- to 10-kHz region in treated animals and 10% to 20% in control animals. MET administration reduced noise-induced threshold shifts. ANOVA revealed a significant difference (<.001). Mean OHC and IHC losses were also significantly reduced (<.001). These data lend further support to the growing body of evidence that oxidative stress, generated in part by glutamate excitotoxicity, impaired mitochondrial function and GSH depletion causes cochlear injury induced by noise. Enhancing the cellular oxidative stress defense pathways in the cochlea eliminates noise-induced cochlear injury. The data also suggest strategies for therapeutic intervention to reduce NIHL clin.

IT **348-67-4**, D-Methionine
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enhancing intrinsic cochlear stress defenses to reduce **noise**-induced **hearing loss**)

RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 144 THERE ARE 144 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2001:537491 CAPLUS
DOCUMENT NUMBER: 135:117260
TITLE: Therapeutic use of D-methionine to reduce the toxicity of **ototoxic** drugs, **noise**, and radiation
INVENTOR(S): Campbell, Kathleen C. M.
PATENT ASSIGNEE(S): Southern Illinois University School of Medicine, USA
SOURCE: U.S., 23 pp., Cont.-in-part of U.S. 6,187,817.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6265386	B1	20010724	US 1998-57065	19980408
US 6187817	B1	20010213	US 1997-942845	19971002
ES 2202834	T3	20040401	ES 1998-915362	19980408
US 2002019443	A1	20020214	US 2001-911195	20010723

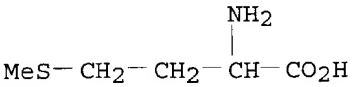
PRIORITY APPLN. INFO.: US 1997-942845 A2 19971002
US 1996-27750P P 19961003
US 1998-57065 A2 19980408

ED Entered STN: 25 Jul 2001

AB Methods of preventing or reducing hearing or balance loss, damage to ear cells, wt. loss, gastrointestinal toxicity, neurotoxicity, alopecia, and prolonging survival in patients undergoing treatment with therapeutically effective amts. of platinum-contg. chemotherapeutic agents such as cisplatin are provided. Methods are also provided for preventing or reducing such symptoms in patients undergoing treatment with loop diuretics, aminoglycoside antibiotics, iron chelating agents, quinine, and quinidine, or those who have been exposed to toxic levels of noise or radiation. These methods comprise administering an effective amt. of a methionine protective agent, such as D-methionine, prior to, simultaneously with, or subsequently to administration of the platinum-contg. chemotherapeutic agent, loop diuretic agent, etc., or exposure to noise or radiation. Combinations of these time periods can also be employed.

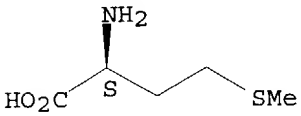
IT **59-51-8**, Methionine **63-68-3**, L-Methionine, biological studies **348-67-4**, D-Methionine **1319-79-5** **6094-76-4**, Homomethionine **13073-35-3**, Ethionine **29908-03-0**, S-Adenosyl-L-methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(therapeutic use of D-methionine and related compds. to reduce toxicity of **ototoxic** drugs, **noise**, platinum-contg. antitumor drugs, and radiation)

RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)



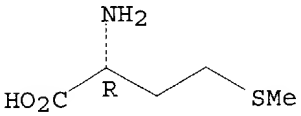
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

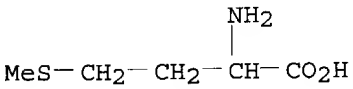


RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

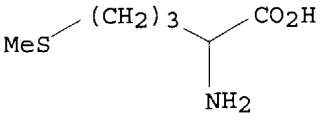


RN 1319-79-5 CAPLUS
CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)



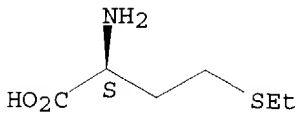
D1—OH

RN 6094-76-4 CAPLUS
CN Norvaline, 5-(methylthio)- (9CI) (CA INDEX NAME)



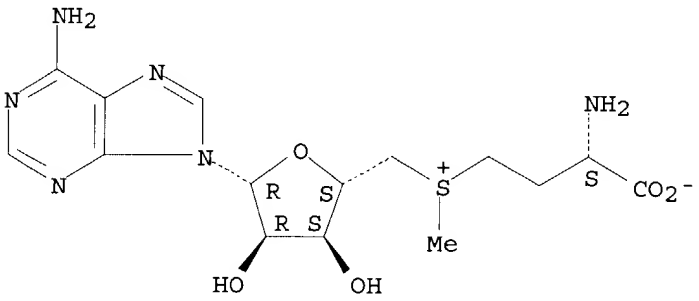
RN 13073-35-3 CAPLUS
CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 29908-03-0 CAPLUS
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:2608 CAPLUS
DOCUMENT NUMBER: 140:41366
TITLE: Method and methyl donor and acceptor composition for treating or preventing catabolism or stimulating anabolism in a mammal undergoing metabolic stress
INVENTOR(S): Hageman, Robert Johan Joseph; Verlaan, George
PATENT ASSIGNEE(S): N.V. Nutricia, Neth.
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000042	A2	20031231	WO 2003-NL449	20030619
WO 2004000042	A3	20040506		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2002-77434 A 20020619
US 2003-452537P P 20030307

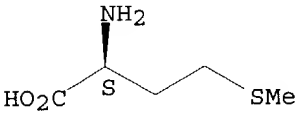
ED Entered STN: 02 Jan 2004

AB The invention is concerned with a method and a compn. for treating or preventing catabolism or of stimulating anabolism in a mammal undergoing metabolic stress. The method comprises administering to the mammal a compn. contg. Me donors selected from the group consisting of L-serine, methionine, choline, phosphatidylcholine, betaine, dimethylglycine, sarcosine, methylated folates, S-adenosyl methionine, thymidine triphosphate, ATP and optionally Me acceptors selected from the group consisting of L-glycine, ethanolamine, phosphatidylethanolamine, folate, ribose, wherein the total molar amt. of Me donors delivered by the method exceeds the total molar amt. of Me acceptors delivered by the method by at least 0.18 mmol/kg body wt./day.

IT **63-68-3**, L-Methionine, biological studies **29908-03-0**
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method and Me donor and acceptor compn. for treating or preventing catabolism or stimulating anabolism in a mammal undergoing metabolic stress)

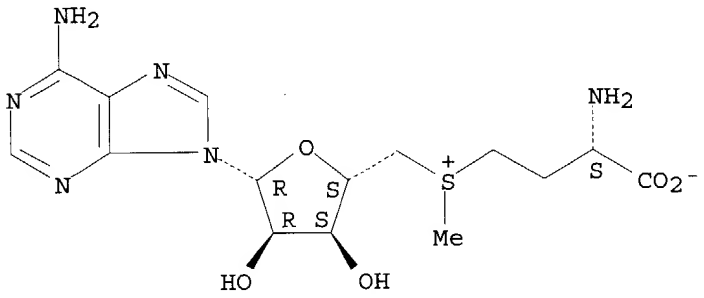
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 29908-03-0 CAPLUS
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:696660 CAPLUS
DOCUMENT NUMBER: 139:202548
TITLE: Method for treating otic disorders
INVENTOR(S): Ashton, Paul; Guo, Hong; Smith, Thomas J.
PATENT ASSIGNEE(S): Control Delivery Systems, Inc., USA
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003071986	A2	20030904	WO 2003-US5519	20030224
WO 2003071986	A3	20031218		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003229333	A1	20031211	US 2003-372636	20030224

PRIORITY APPLN. INFO.: US 2002-358831P P 20020222

ED Entered STN: 05 Sep 2003

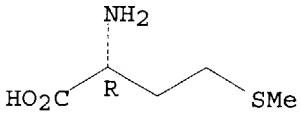
AB Loss of hearing can be treated by implanting a sustained-release drug delivery device in the inner ear. The slow delivery of drug from the implanted device to the tissues of the ear, including the inner ear, can treat numerous conditions of the ear while avoiding the side effects assocd. with systemic administration.

IT **348-67-4**, D-Methionine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method for treating otic disorders)

RN 348-67-4 CAPLUS

CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L40 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:551371 CAPLUS

DOCUMENT NUMBER: 139:111704

TITLE: Methods using glutathione peroxidase mimics, xanthine oxidase inhibitors, and glutathione compds. or glutathione precursors for treating **hearing loss**

INVENTOR(S): Kil, Jonathan; Lynch, Eric D.

PATENT ASSIGNEE(S): Sound Pharmaceuticals Incorporated, USA

SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057207	A1	20030717	WO 2003-US308	20030103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003162747 A1 20030828 US 2003-337251 20030103

PRIORITY APPLN. INFO.: US 2002-345813P P 20020104

ED Entered STN: 18 Jul 2003

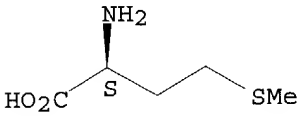
AB In one aspect, the invention provides otoprotectant compns. useful for ameliorating hearing loss. In some embodiments, the otoprotective compns. comprise at least one glutathione peroxidase mimic. In some embodiments, the otoprotective compns. comprise at least one glutathione peroxidase mimic and at least one otoprotectant selected from the group consisting of a xanthine oxidase inhibitor and a glutathione or glutathione precursor. In some embodiments, the otoprotective compns. comprise at least one glutathione peroxidase mimic, at least one xanthine oxidase inhibitor, at least one glutathione or glutathione precursor. In another aspect, the invention provides methods for ameliorating hearing loss by administering to a subject an amt. of an otoprotective compn. that is effective to ameliorate hearing loss.

IT **63-68-3**, Methionine, biological studies **1115-47-5**, N-Acetyl-DL-methionine **29908-03-0**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glutathione peroxidase mimics, xanthine oxidase inhibitors, and glutathione compds. or glutathione precursors for treating **hearing loss**)

RN 63-68-3 CAPLUS

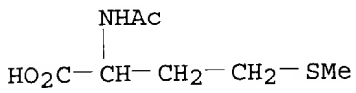
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 1115-47-5 CAPLUS

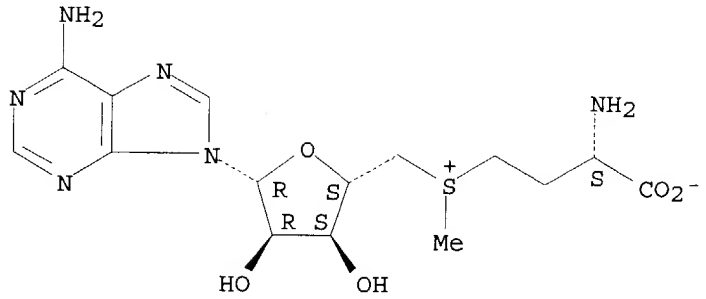
CN Methionine, N-acetyl- (9CI) (CA INDEX NAME)



RN 29908-03-0 CAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



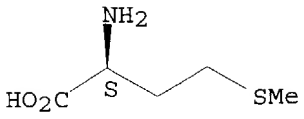
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:132335 CAPLUS
DOCUMENT NUMBER: 138:163601
TITLE: Prophylactic or therapeutic agents for mitochondrial diseases containing taurine, its precursors, and its derivatives
INVENTOR(S): Ota, Shigeo
PATENT ASSIGNEE(S): Taisho Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003048829	A2	20030221	JP 2001-234900	20010802

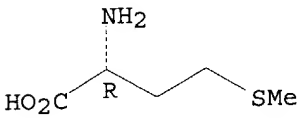
PRIORITY APPLN. INFO.: JP 2001-234900 20010802
ED Entered STN: 21 Feb 2003
AB The agents for prevention or treatment of CPEO (chronic progressive external ophthalmoplegia), MERRF, MELAS, other diseases due to mitochondrial gene mutations, e.g. diabetes, cardiomyopathy, etc., contain .gtoreq.1 selected from taurine, taurine chloramine, S-contg. amino acids, their pharmacol. acceptable salts, and taurine derivs. A granule contg. taurine 3000, powder sucrose 600, Aerosil 36, aspartame 9, low-substituted hydroxypropyl cellulose 54 mg was prepd. Respiratory capacity of cybrid cells having a point mutation at position 3243 of the tRNALeu(UUR) of the mitochondrial DNA was increased by incubation with taurine, while respiratory capacity of a control cell having normal mitochondrial DNA was not affected.
IT **63-68-3**, Methionine, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(treatment of mitochondrial diseases using taurine, its derivs. or S-contg. amino acids to normalize respiration of mitochondria having mutated gene)
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:762601 CAPLUS
DOCUMENT NUMBER: 140:210637
TITLE: Experimental study in the protective effect of D-methionine on gentamicin **ototoxicity**
AUTHOR(S): Chen, Xueming; Wang, Shili; Pan, Sifen; Ye, Yanfen
CORPORATE SOURCE: Department of Otolaryngology, Ruijin Hospital, Shanghai Second Medical University, Shanghai, 200025, Peop. Rep. China
SOURCE: Shanghai Dier Yike Daxue Xuebao (2002), 22(3), 235-237
CODEN: SDDXE3; ISSN: 0258-5898
PUBLISHER: Shanghai Dier Yike Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
ED Entered STN: 30 Sep 2003
AB The ability of D-methionine to protect against gentamicin-induced ototoxicity and the possible mechanism involved were studied. Thirty guinea pigs were divided into three groups: saline controls, gentamicin, only and D-methionine + gentamicin. Ototoxicity and D-methionine otoprotection were assessed electrophysiol. by auditory brain stem responses and anatomically by cochlear histol. The D-methionine groups had significantly lower ABR threshold shift than the gentamicin only at all frequencies tested. Histol. findings showed that the loss of outer hair cells in the D-methionine group was much less dramatic than that in the gentamicin group. D-methionine offers remarkable protection against gentamicin-induced ototoxicity.
IT **348-67-4**, D-Methionine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(protective effect of D-methionine on gentamicin **ototoxicity**)
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

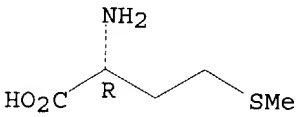
Absolute stereochemistry. Rotation (+).



L40 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:381047 CAPLUS
DOCUMENT NUMBER: 138:82926
TITLE: D-Methionine and cisplatin **ototoxicity** in the guinea pig: D-methionine influences cisplatin pharmacokinetics
AUTHOR(S): Ekborn, Andreas; Laurell, Goran; Johnstrom, Peter; Wallin, Inger; Eksborg, Staffan; Ehrsson, Hans
CORPORATE SOURCE: Department of Otorhinolaryngology, Head and Neck Surgery, Karolinska Hospital, Stockholm, SE-171 76, Swed.
SOURCE: Hearing Research (2002), 165(1-2), 53-61

CODEN: HERED3; ISSN: 0378-5955
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 22 May 2002
AB The use of systemic D-methionine as a protector against cisplatin ototoxicity was studied in guinea pigs. The kinetics and distribution of [11CH3]D-methionine were analyzed by PET. Cisplatin and the monohydrated complex of cisplatin were quantified in the blood ultrafiltrate by using reversed-phase liq. chromatog. with postcolumn derivatization. Administration of 300 mg D-methionine/kg caused a 30% decrease in the area under the concn.-time curve (AUC) of cisplatin. The ototoxic effect of cisplatin was studied after dose adjustment of cisplatin, i.e., with similar cisplatin AUC in the group receiving D-methionine and the saline control group. A significant ototoxic effect, measured as difference in pre- and 96-h post-treatment electrophysiol. hearing threshold (auditory brainstem response), was obsd. at stimulus frequencies of 30 and 20 kHz. There was no difference between the groups in the extent of threshold shift. Quant. outer hair cell counts showed a similar loss of cells in the two groups. All the animals had an increase in plasma creatinine but there was no difference between the groups. The results indicate that protection from cisplatin ototoxicity by systemic D-methionine can be explained by a lowered systemic exposure to the drug.
IT **348-67-4**, D-Methionine
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(D-methionine protection against cisplatin-induced **ototoxicity** in relation to effects on cisplatin pharmacokinetics)
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



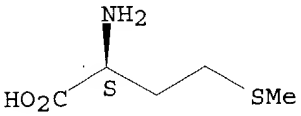
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:235120 CAPLUS
DOCUMENT NUMBER: 137:97746
TITLE: Effect on **noise** on concentration of amino acid in perilymph of guinea pig cochlea
AUTHOR(S): Gao, Wenyuan; Jiang, Yaping
CORPORATE SOURCE: Department of Physiology, Department of Basic Medicine, Second Military Medical University, Shanghai, 200433, Peop. Rep. China
SOURCE: Dier Junyi Daxue Xuebao (2002), 23(1), 41-44
CODEN: DJXUE5; ISSN: 0258-879X
PUBLISHER: Dier Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 28 Mar 2002
AB Noise effect on amino acid concns. in cochlea perilymph was studied. Guinea pigs were exposed to white noise at 115 dB sound pressure level (SPL) for 2 h or maintained in silence (40 dB SPL). Free amino acids in cochlea perilymph from both groups were analyzed by HPLC with fluorescence detection. Fourteen amino acids were detected in cochlea perilymph from

animals in the silent group. The compn. and concn. of these amino acids were similar to those in guinea pig cerebrospinal fluid. Glutamic acid concns. in cochlea from the noise group animals was significantly higher than that of the silent group animals. Av. glutamic acid concn. in the silent group was 6.6 .+-. 0.2 .mu.mol/L; in the noise group, the glutamic acid concn. was 10.3 .+-. 1.1 .mu.mol/L. The latter was 55% higher than the former. Glutamic acid concns. in cochlea perilymph can be significantly increased following exposure to noise. Results inferred this increase was caused by over-release of glutamate from hair cells and reversal of the glutamate transporter.

IT **63-68-3**, Methionine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**noise** exposure effect on amino acid concns. in cochlea perilymph of guinea pigs)
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:833014 CAPLUS
DOCUMENT NUMBER: 135:376736
TITLE: Phospholipid, fatty acid, and vitamin-containing preparation for the prevention and/or treatment of vascular disorders
INVENTOR(S): Kiliaan, Amanda Johanne; Hageman, Robert Johan Joseph
PATENT ASSIGNEE(S): N.V. Nutricia, Neth.
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001084961	A2	20011115	WO 2001-NL347	20010508
WO 2001084961	A3	20020815		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1282365	A2	20030212	EP 2001-928256	20010508
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:
US 2000-566386 A 20000508
US 2000-703798 A 20001102
WO 2001-NL347 W 20010508

ED Entered STN: 16 Nov 2001

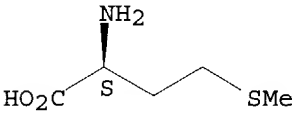
AB The present invention relates to a nutritional prepn. suitable for the prevention and/or treatment of vascular disorders, comprising the following fractions: (a) long chain polyunsatd. fatty acids; (b) phospholipids, which fraction contains at least two different phospholipids selected from the group consisting of phosphatidylserine; phosphatidylinositol, phosphatidylcholine and phosphatidylethanolamine; (c) compds. which are a factor in methionine metab., which fraction contains at least one member selected from the group consisting of folic acid, vitamin B12, vitamin B6, magnesium and zinc; (d) citrate or citric acid; and (e) huperzine A or its analog. Vascular disorder is atherosclerosis, arteriosclerosis, hypercholesterolemia, hyperlipidemia, elevated blood pressure, angina pectoris, dementia syndromes, cerebrovascular accidents, temporary disorders assocd. with ischemia, Raynaud's syndrome, vein thrombosis, postpartum thrombosis, myocardial infarction, varicose veins, thromboanginitis obliterans, and atherosclerosis obliterans, while the sec. vascular disorder is dementia syndromes, cognitive degeneration or hearing loss. For example, capsules for use by demented persons three times a day were prepd. contg. docosahexaenoic acid 50 mg, eicosapentaenoic acid 75 mg, phospholipids 250 mg, folic acid 200 .mu.g, vitamin B12 25 mg, Huperzia serrata ext. 100 mg, vitamin B1 100 mg, coenzyme Q10 10 mg, vitamin E 200 mg, and Ginkgo biloba ext. 120 mg. The nutritional supplements were also formulated into pudding, powder concs. and bars.

IT **63-68-3**, Methionine, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(factors in metab. of; phospholipid, fatty acid, and vitamin-contg. prepns. for prevention and/or treatment of vascular disorders)

RN 63-68-3 CAPLUS

CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

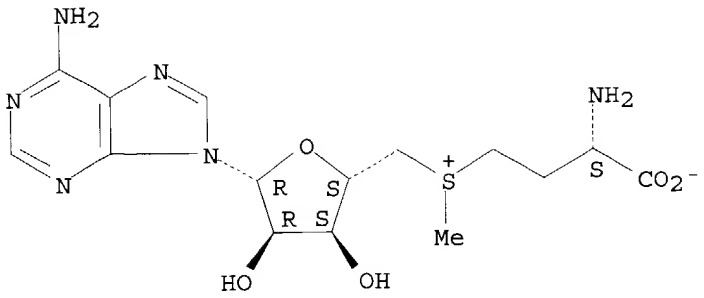


IT **29908-03-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phospholipid, fatty acid, and vitamin-contg. prepns. for prevention and/or treatment of vascular disorders)

RN 29908-03-0 CAPLUS

CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

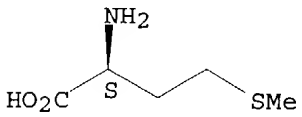
Absolute stereochemistry.



L40 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:474604 CAPLUS
DOCUMENT NUMBER: 136:210154
TITLE: Round window membrane delivery of L-methionine provides protection from cisplatin **ototoxicity** without compromising chemotherapeutic efficacy
AUTHOR(S): Li, Geming; Frenz, Dorothy A.; Brahmblatt, Sapna; Feghali, Joseph G.; Ruben, Robert J.; Berggren, Diana; Arezzo, Joseph; Van De Water, Thomas R.
CORPORATE SOURCE: Department of Otolaryngology, Albert Einstein College of Medicine, Bronx, NY, USA
SOURCE: Neurotoxicology (2001), 22(2), 163-176
CODEN: NRTXDN; ISSN: 0161-813X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 02 Jul 2001
AB Cisplatin (cis-diamminedichloroplatinum(II) (CDDP)) is a widely used, highly effective, oncolytic agent that has serious ototoxic side-effects. To test the effectiveness of local delivery of L-methionine (L-Met) as an otoprotective agent against CDDP ototoxicity, we used a rat model of a highly metastatic breast cancer tumor, i.e. Fisher 344 rats implanted with MTLn3 breast cancer cells. Four exptl. groups were evaluated - I: untreated; II: CDDP-treated (three dosages); III: systemically-delivered L-Met + CDDP-treated; IV: locally delivered L-Met + CDDP-treated. The integrity of the outer hair cells (OHCs) was detd. using SEM; hearing was assessed by recording auditory brainstem responses (ABRs) at multiple frequencies. The chemotherapeutic effectiveness of CDDP was quantified by measuring changes in tumor mass and the presence of tumor metastasis. L-Met provided otoprotection of the OHCs against CDDP toxicity in the cochleae of rats following either systemic (III) or local (IV) administration. The ABRs were unchanged in each of the L-Met protection Groups (III and IV) and in the untreated animals of Group I. Treatment with CDDP only (II) induced significant hearing losses at both 16 and 18 kHz when compared to ABRs of untreated rats(I). CDDP was effective in controlling the MTLn3 initiated breast cancer tumors in the CDDP-treated (II) and the local L-Met protection, CDDP-treated (IV) Groups. In contrast, the tumors in the systemic L-Met protection, CDDP-treated Group (III) were not controlled by the CDDP treatment regime. This study demonstrates that local delivery of L-Met to the scala tympani of the cochlea via the round window membrane (IV) provides effective protection against CDDP ototoxicity without compromising its ability to control a highly metastatic form of cancer.
IT **63-68-3**, L-Methionine, biological studies
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(round window membrane delivery of L-methionine provides protection

from cisplatin **ototoxicity** without compromising chemotherapeutic efficacy)
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

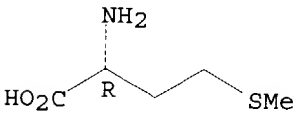
Absolute stereochemistry.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:601896 CAPLUS
DOCUMENT NUMBER: 134:80573
TITLE: D-Methionine attenuates inner hair cell loss in carboplatin-treated chinchillas
AUTHOR(S): Lockwood, D. S.; Ding, D. L.; Wang, J.; Salvi, R. J.
CORPORATE SOURCE: Center for Hearing and Deafness, State University of New York at Buffalo, Buffalo, NY, 14214, USA
SOURCE: Audiology & Neuro-Otology (2000), 5(5), 263-266
CODEN: ANEOFO; ISSN: 1420-3030
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 30 Aug 2000
AB Chinchillas were divided into 2 groups: a control group that received only carboplatin (100 mg/kg, i.p.) and an exptl. group that received 300 mg D-methionine (i.p.) 30 min before carboplatin. Ototoxicity was assessed by measuring the extent of inner hair cell and outer hair cell loss. The av. inner hair cell loss in the group treated with D-methionine was 62%, compared with 84% in the control group. Thus, D-methionine significantly reduced the inner hair cell loss induced in chinchillas by carboplatin.
IT **348-67-4**, D-Methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(D-methionine attenuation of inner hair cell loss in carboplatin-treated chinchillas)
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

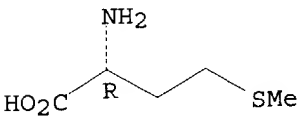


REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:221335 CAPLUS
DOCUMENT NUMBER: 133:187918
TITLE: Antioxidants attenuate gentamicin-induced free radical formation in vitro and **ototoxicity** in vivo:

D-methionine is a potential protectant
AUTHOR(S): Sha, S.-H.; Schacht, J.
CORPORATE SOURCE: Department of Otolaryngology, Kresge Hearing Research Institute, University of Michigan, Ann Arbor, MI, USA
SOURCE: Hearing Research (2000), 142(1-2), 34-40
CODEN: HERED3; ISSN: 0378-5955
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 06 Apr 2000
AB We have recently suggested antioxidant therapy against aminoglycoside-induced hearing loss based on the hypothesis of a redox-active aminoglycoside-iron complex causing ototoxicity. The present study compares seven antioxidants and iron chelators for their ability to attenuate gentamicin-induced free radical generation in vitro and ototoxicity in guinea pig in vivo. Free radical formation by gentamicin was measured by chemiluminescence detection both in a non-enzymic system in vitro and in cell culture. Deferoxamine, 2,3-dihydroxybenzoate, or salicylic acid suppressed gentamicin-induced luminescence in both tests. This indicated the usefulness of the assay as a screen for potential protectants since these agents had previously been shown to attenuate gentamicin-induced ototoxicity in vivo. Histidine and D-methionine, amino acids with chelating and antioxidant properties, also suppressed gentamicin-mediated luminosity both in vitro and in cell culture. In contrast, the metal chelators succimer (2,3-dimercaptosuccinic acid (DMSA)) and trientine (N,N'-bis[2-aminoethyl]-1,2 ethanediamine) promoted free radical formation and were excluded from further studies. Histidine and D-methionine were then administered to guinea pigs receiving concurrent treatment with gentamicin (120 mg/kg.times.19 days). Threshold shifts induced by gentamicin were significantly attenuated by twice-daily injections of D-methionine. Once-daily injections of histidine or D-methionine were less effective, pointing to the importance of pharmacokinetics in antioxidant protection in vivo. The study presents a simple screening system for agents with the potential to attenuate gentamicin-induced hearing loss. It also supports the hypothesis of free radical formation as an underlying cause of gentamicin ototoxicity.
IT **348-67-4**, D-Methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidants attenuate gentamicin-induced free radical formation in vitro and **ototoxicity** in vivo, D-methionine is a potential protectant)
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:249071 CAPLUS
DOCUMENT NUMBER: 130:262147
TITLE: Use of D-methionine or other methionine compound to reduce the toxicity of **ototoxic** drugs,

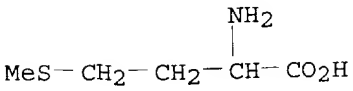
noise, and radiation
INVENTOR(S): Campbell, Kathleen C. M.
PATENT ASSIGNEE(S): Southern Illinois University, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9917765	A1	19990415	WO 1998-US6960	19980408
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6187817	B1	20010213	US 1997-942845	19971002
CA 2303901	AA	19990415	CA 1998-2303901	19980408
AU 9869568	A1	19990427	AU 1998-69568	19980408
AU 753039	B2	20021003		
EP 1019036	A1	20000719	EP 1998-915362	19980408
EP 1019036	B1	20030625		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001518499	T2	20011016	JP 2000-514636	19980408
AT 243511	E	20030715	AT 1998-915362	19980408
ES 2202834	T3	20040401	ES 1998-915362	19980408

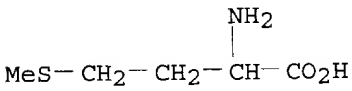
PRIORITY APPLN. INFO.: US 1997-942845 A 19971002
US 1996-27750P P 19961003
WO 1998-US6960 W 19980408

OTHER SOURCE(S): MARPAT 130:262147
ED Entered STN: 23 Apr 1999
AB Methods of preventing or reducing hearing or balance loss, damage to ear cells, wt. loss, gastrointestinal toxicity, neurotoxicity, alopecia, and prolonging survival in patients undergoing treatment with therapeutically effective amts. of platinum-contg. chemotherapeutic agents, e.g. cisplatin, are provided. Methods are also provided for preventing or reducing such symptoms in patients undergoing treatment with loop diuretics, aminoglycoside antibiotics, iron chelating agents, quinine, and quinidine, or those who have been exposed to toxic levels of noise or radiation. These methods comprise administering an effective amt. of a methionine protective agent, e.g. D-methionine, prior to, simultaneously with, or subsequently to administration of the platinum-contg. chemotherapeutic agent, loop diuretic agent, etc., or exposure to noise or radiation. Combinations of these time periods can also be employed.
IT **59-51-8**, Methionine **59-51-8D**, Methionine, compds.
63-68-3, L-Methionine, biological studies **63-68-3D**,
L-Methionine, derivs., biological studies **348-67-4**, D-Methionine
348-67-4D, D-Methionine, derivs. **1319-79-5**
13073-35-3, Ethionine **29908-03-0**, S-Adenosyl-L-methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methionine compds. to reduce toxicity of **ototoxic** drugs, **noise**, and radiation)
RN 59-51-8 CAPLUS

CN Methionine (9CI) (CA INDEX NAME)

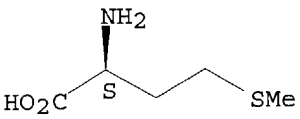


RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)



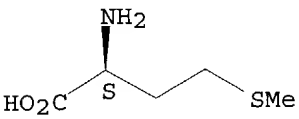
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



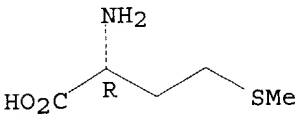
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



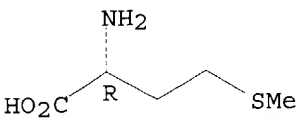
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



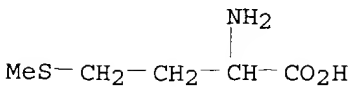
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 1319-79-5 CAPLUS

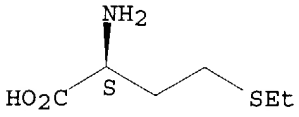
CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)



D1—OH

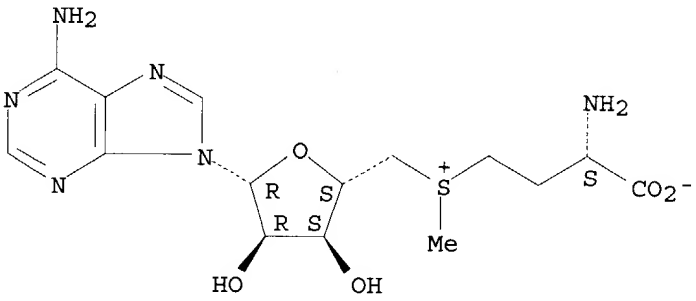
RN 13073-35-3 CAPLUS
CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 29908-03-0 CAPLUS
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

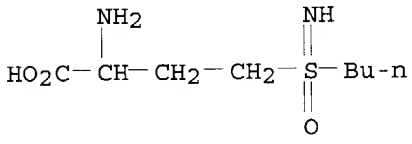
L40 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:164540 CAPLUS
DOCUMENT NUMBER: 131:13473
TITLE: Intracochlear infusion of buthionine sulfoximine potentiates carboplatin **ototoxicity** in the chinchilla
AUTHOR(S): Hu, Bo Hua; McFadden, Sandra L.; Salvi, Richard J.; Henderson, Donald
CORPORATE SOURCE: Center for Hearing and Deafness, State University of New York at Buffalo, Buffalo, NY, 14214, USA
SOURCE: Hearing Research (1999), 128(1-2), 125-134
CODEN: HERED3; ISSN: 0378-5955
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Mar 1999
AB The aim of this expt. was to det. if buthionine sulfoximine (BSO), an

inhibitor of glutathione (GSH) synthesis, enhances the ototoxicity of carboplatin. Osmotic pumps were used to infuse BSO into the right cochleas of 12 adult chinchillas for 14 days. The left cochleas served as controls. Animals were assigned to three groups: a drug control group that did not receive carboplatin, a group that received a single dose of carboplatin (25 mg/kg i.p.), and a group that received a double dose of carboplatin (25 mg/kg i.p. .times.2), with 4 days between injections. Carboplatin was administered after three days of BSO pre-treatment. Ototoxicity was assessed with evoked potentials recorded from electrodes implanted in the inferior colliculi (ICPs), distortion product otoacoustic emissions (DPOAEs), and cochleograms. BSO infusion itself caused no long-term functional or morphol. changes. One of four animals treated with a single dose of carboplatin showed a significant loss of inner hair cells (IHCs), with greater loss in the BSO-treated ear. All animals in the double-dose carboplatin group showed marked differences between BSO-treated and control ears. Av. IHC losses were 59% in BSO-treated ears vs. 18% in control ears. Moreover, BSO-treated ears sustained significantly greater outer hair cell (OHC) losses than control ears (37% vs. 2%, resp.). ICP and DPOAE response amplitudes were reduced slightly in BSO-treated ears relative to control ears, consistent with their greater hair cell loss. The results clearly show that BSO can enhance carboplatin ototoxicity in the chinchilla, supporting a role of GSH and reactive oxygen species in platinum ototoxicity.

IT **5072-26-4**, Buthionine sulfoximine
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(intracochlear infusion of buthionine sulfoximine potentiates carboplatin **ototoxicity** in the chinchilla)

RN 5072-26-4 CAPLUS

CN Butanoic acid, 2-amino-4-(S-butylsulfonimidoyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:746546 CAPLUS

DOCUMENT NUMBER: 132:260262

TITLE: D-Methionine protects against cisplatin damage to the stria vascularis

AUTHOR(S): Campbell, K. C. M.; Meech, R. P.; Rybak, L. P.; Hughes, L. F.

CORPORATE SOURCE: Southern Illinois University School of Medicine, Springfield, IL, USA

SOURCE: Hearing Research (1999), 138(1-2), 13-28
CODEN: HERED3; ISSN: 0378-5955

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 24 Nov 1999

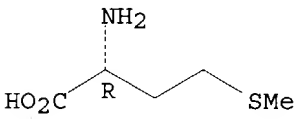
AB D-Methionine (D-met) protects against cisplatin (CDDP)-induced hearing loss and outer hair cell loss (Campbell et al., 1996). However, D-met's protective effects on the stria vascularis has not been previously investigated. The purpose of this study was to examine, using semi-quant.

anal., whether D-met also protects the stria vascularis. We removed a basal turn section of the stria vascularis from five groups of five male Wistar rats each: (1) a CDDP-treated control group receiving a 30 min i.p. infusion of 16 mg/kg CDDP, (2) a saline-injected control group receiving an equiv. vol. of saline, and (3) three groups injected with either 75, 150, or 300 mg/kg D-methionine (D-met) i.p. 30 min prior to receiving the 16 mg/kg CDDP dosing. Using transmission electron microscopy and light microscopy, we analyzed strial vol. (i.e. edema), marginal cell damage classification (bulging and/or compression), and relative optical d. (ROD) ratios (i.e. depletion of marginal cell cytoplasmic organelles). All three levels of D-met provided complete protection against marginal cell bulging and/or compression but only partial protection against strial edema. At 300 mg/kg, D-met significantly reduced ROD ratio degrdn. in the spiral prominence and middle stria vascularis regions. In Reissner's membrane region, values from the D-met pretreated group were not significantly different from either the treated or untreated control groups suggesting only partial protection for that area. Protection of marginal cell cytoplasmic organelles was also noted. In summary, D-met partially or fully protects the stria vascularis from several types of CDDP-induced damage.

IT **348-67-4**, D-Methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methionine protects against cisplatin damage to the stria vascularis)

RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:219707 CAPLUS
DOCUMENT NUMBER: 128:290226
TITLE: Therapeutic use of a methionine compound, such as D-methionine, to reduce the toxicity of platinum-containing antitumor compounds
INVENTOR(S): Campbell, Kathleen C. M.
PATENT ASSIGNEE(S): Southern Illinois University, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9814182	A1	19980409	WO 1997-US18114	19971002

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9748957	A1	19980424	AU 1997-48957	19971002
AU 726392	B2	20001109		
EP 930877	A1	19990728	EP 1997-911634	19971002
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001501626	T2	20010206	JP 1998-516973	19971002

PRIORITY APPLN. INFO.: US 1996-27750P P 19961003
WO 1997-US18114 W 19971002

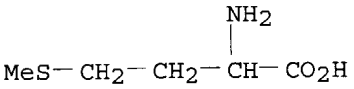
OTHER SOURCE(S): MARPAT 128:290226

ED Entered STN: 18 Apr 1998

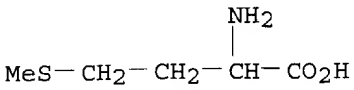
AB Methods are provided for preventing or reducing hearing or balance loss, damage to ear cells, wt. loss, gastrointestinal toxicity, neurotoxicity, alopecia, and for prolonging survival in patients undergoing treatment with therapeutically effective amts. of platinum-contg. chemotherapeutic agents, e.g. cisplatin, are provided. These methods comprise administering an effective amt. of a methionine protective agent, e.g. D-methionine, prior to, simultaneously with, or subsequently to administration of the platinum-contg. chemotherapeutic agent. Combinations of these time periods can also be employed.

IT **59-51-8**, Methionine **59-51-8D**, Methionine, derivs. **63-68-3**, L-Methionine, biological studies **348-67-4**, D-Methionine **1319-79-5 13073-35-3**, Ethionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methionine compd. for redn. of toxicity of platinum-contg. antitumor compds.)

RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)

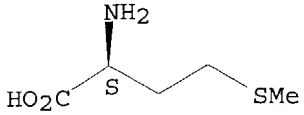


RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)



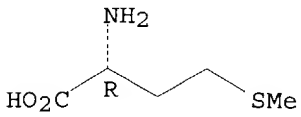
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

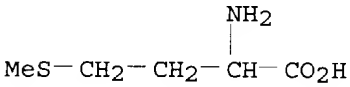


RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



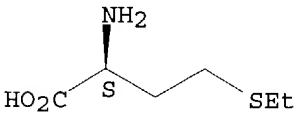
RN 1319-79-5 CAPLUS
CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)



D1—OH

RN 13073-35-3 CAPLUS
CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

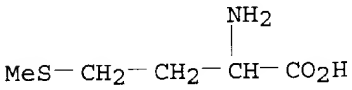


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:617007 CAPLUS
DOCUMENT NUMBER: 127:288186
TITLE: Methods of treating neurological diseases and etiologically related symptomology using carbonyl trapping agents in combination with previously known medicaments
INVENTOR(S): Shapiro, Howard K.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 37 pp., Cont.-in-part of U.S. Ser. No. 26,617, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5668117	A	19970916	US 1993-62201	19930629
CA 2166383	AA	19950112	CA 1994-2166383	19940628
WO 9501096	A1	19950112	WO 1994-US7277	19940628
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9472144	A1	19950124	AU 1994-72144	19940628
AU 692454	B2	19980611		
EP 707446	A1	19960424	EP 1994-921405	19940628

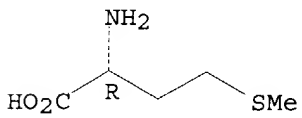
R: DE, FR, GB, IT
JP 08512055 T2 19961217 JP 1994-503597 19940628
PRIORITY APPLN. INFO.: US 1991-660561 B1 19910222
US 1993-26617 B2 19930223
US 1993-62201 A 19930629
WO 1994-US7277 W 19940628
OTHER SOURCE(S): MARPAT 127:288186
ED Entered STN: 27 Sep 1997
AB Therapeutic compns. comprising an effective amt. of at least one carbonyl trapping agent alone or in combination with a therapeutically effective of a co-agent or medicament are disclosed. The compns. are used to treat a mammal suffering from a neurol. disease characterized by covalent bond crosslinking between the nerve cells, other cellular structures and their intracellular and extracellular components, with disease-induced carbonyl-contg. aliph. or arom. hydrocarbons present in mammals.
IT **59-51-8**, D,L-Methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(carbonyl trapping agent combination with other drug for treatment of neurol. diseases and etiol. related symptomol.)
RN 59-51-8 CAPLUS
CN Methionine (9CI) (CA INDEX NAME)



L40 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:25622 CAPLUS
DOCUMENT NUMBER: 126:84197
TITLE: D-Methionine provides excellent protection from cisplatin **ototoxicity** in the rat
AUTHOR(S): Campbell, Kathleen C. M.; Rybak, Leonard P.; Meech, Robert P.; Hughes, Larry
CORPORATE SOURCE: Department Surgery, Southern Illinois University (SIU) School Medicine, Springfield, IL, 62794-1618, USA
SOURCE: Hearing Research (1996), 102(1/2), 90-98
CODEN: HERED3; ISSN: 0378-5955
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 15 Jan 1997
AB Cisplatin (CDDP) is a widely used chemotherapeutic agent. Unfortunately, CDDP is highly ototoxic. We tested D-methionine (D-Met), a sulfur contg. compd., as an otoprotectant in male Wistar rats. Complete data sets were obtained for five groups of five animals each, including a treated control group (16 mg/kg CDDP), an untreated control group (administered an equiv. vol. of saline) and three groups that received either 75, 150, or 300 mg/kg D-Met 30 min prior to the 16 mg/kg CDDP dosing. Auditory brainstem response (ABR) thresholds were obtained in response to clicks, and 1 kHz, 4 kHz, 8 kHz, and 14 kHz toneburst stimuli, before and 3 days after drug administration. SEM was used to examine the outer hair cells of the apical, middle and basal turns of the cochlea. Animal wt. was measured on the first and final day. D-Met provided excellent otoprotection even at the lowest level with complete otoprotection obtained for the 300 mg/kg dosing as measured by both ABR and SEM. D-Met also markedly reduced wt. loss and mortality. All animals receiving D-Met (15/15) survived to the end of the study period as opposed to only 5/10 of the treated controls.

IT **348-67-4**, D-Methionine
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(D-Methionine provides excellent protection from cisplatin **ototoxicity** in the rat)
RN 348-67-4 CAPLUS
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L40 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:723143 CAPLUS
DOCUMENT NUMBER: 123:102794
TITLE: Pharmaceutical compositions and use thereof for treatment of neurological diseases and etiologically related symptomatology.
INVENTOR(S): Shapiro, Howard K.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 155 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9501096	A1	19950112	WO 1994-US7277	19940628
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5668117	A	19970916	US 1993-62201	19930629
AU 9472144	A1	19950124	AU 1994-72144	19940628
AU 692454	B2	19980611		
EP 707446	A1	19960424	EP 1994-921405	19940628
R: DE, FR, GB, IT				
JP 08512055	T2	19961217	JP 1994-503597	19940628

PRIORITY APPLN. INFO.:
US 1993-62201 A 19930629
US 1991-660561 B1 19910222
US 1993-26617 B2 19930223
WO 1994-US7277 W 19940628

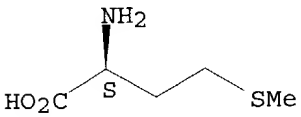
ED Entered STN: 08 Aug 1995
AB Pharmaceutical compns. for treatment of several neurol. diseases and pathophysiol.-related symptomol. in other body tissues, including peripheral neuropathies, secondary symptomol. of diabetes, Alzheimer's disease, Parkinson's disease, alc. polyneuropathy and age-onset symptomol., as well as analogous veterinary diseases, are disclosed. Spurious pathol. chem. crosslinking of normal intracellular structures is a fundamental aspect of these neurol. diseases. Covalent bond crosslinking of protein and lipid subcellular elements appear to underlie the formation of polymd. aggregates of neurofilaments and other structural proteins, and lipofuscin. Pharmacol. intervention in some neurol. diseases using water-sol., small mol. wt. primary amines or their derivs.

as oral therapeutic agents, may compete with cellular protein and lipid amine groups for reaction with disease-induced carbonyl-contg. aliph. and arom. hydrocarbons. Primary pharmacol. agents include 4-aminobenzoic acid and derivs. thereof to facilitate kidney recognition and removal. This invention also includes oral use of nonabsorbable polyamine polymers and amine-related co-agents, such as chitosan, to covalently bind and sequester potentially toxic carbonyl compds. present in the diet, oral use of known antioxidant co-agents and related nutritional factors and use of the primary agent and co-agents in combination with known medicaments for treatment of these neurol. diseases.

IT **63-68-3**, Methionine, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. for treatment of neurol. diseases contg.)

RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



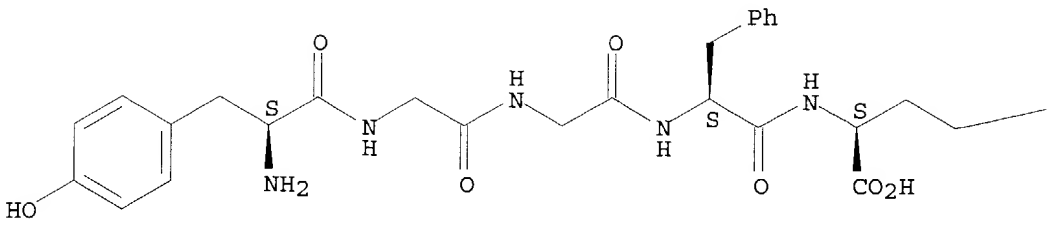
L40 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1987:509782 CAPLUS
DOCUMENT NUMBER: 107:109782
TITLE: Effect of **noise** level on the Met-enkephalin content of the guinea pig cochlea
AUTHOR(S): Eybalin, Michel; Rebillard, Guy; Jarry, Therese; Cupo, Anny
CORPORATE SOURCE: CHR Hop. St. Charles, Univ. Montpellier II, Montpellier, 34059, Fr.
SOURCE: Brain Research (1987), 418(1), 189-92
CODEN: BRREAP; ISSN: 0006-8993
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 05 Oct 1987
AB A specific RIA for Met-enkephalin was used to monitor changes of the Met-enkephalin content of guinea pig cochleas following a 60 min exposure to different intensities of white noise (70, 90, and 110 dB) in 2 series of expts. The Met-enkephalin content was lower after noise exposures than after exposure to the silence of a sound attenuated chamber. After a stimulation at 70 dB, the levels of Met-enkephalin were 70% (series I) and 61% (series II) of those obtained after a period of silence. After a 110 dB stimulation, these values fell to 41% (series I) and 55% (series II) of those in silence. Apparently enkephalins are olivocochlear neuroactive substances and the enkephalin-contg. lateral olivocochlear system probably discharges with noise stimuli of moderate intensity.

IT **58569-55-4**, Methionine enkephalin
RL: BIOL (Biological study)
(of ear cochlea, **noise** exposure effect on)

RN 58569-55-4 CAPLUS
CN 1-5-Adrenorphin (human) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



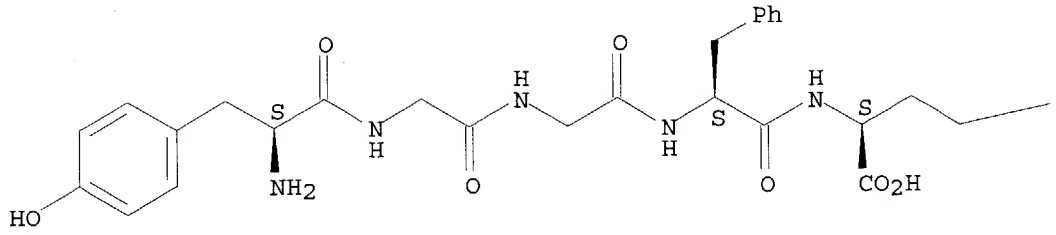
PAGE 1-B

— SMe

L40 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:516687 CAPLUS
DOCUMENT NUMBER: 99:116687
TITLE: Effect of sound stimulation at several levels on concentrations of primary amines, including neurotransmitter candidates, in perilymph of the guinea pig inner ear
AUTHOR(S): Drescher, Marian J.; Drescher, Dennis G.; Medina, Jesus E.
CORPORATE SOURCE: Sch. Med., Wayne State Univ., Detroit, MI, 48201, USA
SOURCE: Journal of Neurochemistry (1983), 41(2), 309-20
CODEN: JONRA9; ISSN: 0022-3042
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Exposure of guinea pigs to noise at 80-115 decibels increased the levels of primary amine components in the perilymph of the inner ear. A GABA [56-12-2]-like component was elevated in the initial period in proportion to the stimulus intensity. Aspartic acid [56-84-8] was elevated 2-3.5 h after the onset of sound stimulus and a methionine-enkephalin [**58569-55-4**]-like compd. was elevated in response to noise at 115 decibels. The majority of perilymph components, however, including putative neurotransmitters, did not change in response to sound stimulus. Apparently, GABA or a related compd. mediates excitatory receptoneural transmission in the cochlea. A detailed anal. of perilymph components is included.
IT **58569-55-4**
RL: BIOL (Biological study)
(of ear cochlea perilymph, sound effect on)
RN 58569-55-4 CAPLUS
CN 1-5-Adrenorphin (human) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

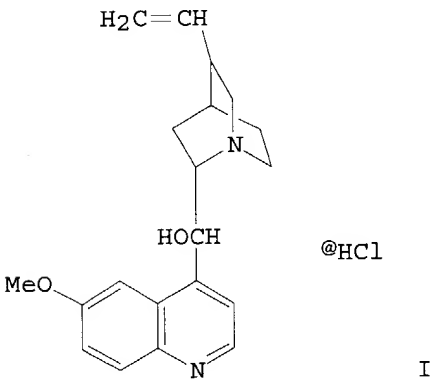
PAGE 1-A



PAGE 1-B

—SMe

L40 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1977:101031 CAPLUS
DOCUMENT NUMBER: 86:101031
TITLE: Prolonged administration of quinine to guinea pigs and its biochemical effect on hearing
AUTHOR(S): Ramadan, Mohyi A.; Eid, Salah Z.; El-Adawy, Sanaa A.
CORPORATE SOURCE: Fac. Med., Ain Shams Univ., Cairo, Egypt
SOURCE: Ain Shams Medical Journal (1975), 26(2), 219-24
CODEN: AIMJA9; ISSN: 0002-2144
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI



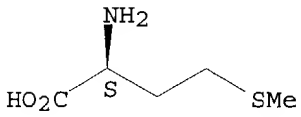
I

AB Following daily oral administration of quinine-HCl (I) [7549-43-1] (0.03 gm/kg/day for 2 months) to guinea pigs, the decreasing order of I accumulation was: eighth cranial nerve > whole cochlea > bony portion of the cochlea > brain. Cochlear methionine [**63-68-3**], glycine [56-40-6], and serine [56-45-1] were increased by I along with the serum Ca level. Serum PO43-, choline esterase [9001-08-5], and alkaline phosphatase [9001-78-9] were decreased by I administration.

IT **63-68-3**, biological studies
RL: BIOL (Biological study)

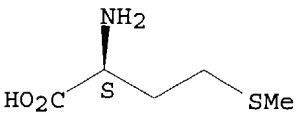
(of cochlea, quinine effect on, **ototoxicity** in relation to)
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1975:490865 CAPLUS
DOCUMENT NUMBER: 83:90865
TITLE: Biochemical **ototoxicity** of salicylates after prolonged administration to guinea pigs
AUTHOR(S): Ramadan, Mohyi A.; Eid, Salah Z.; El-Adawy, Sanaa A.
CORPORATE SOURCE: Fac. Med., Ain Shams Univ., Cairo, Egypt
SOURCE: Ain Shams Medical Journal (1974), 25(6), 769-73
CODEN: AIMJA9; ISSN: 0002-2144
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB Salicylate was accumulated in the brain but not in the cochlea, when Na salicylate (I) [54-21-7] was orally administered to guinea pigs for 2 months. I inhibited serum cholinesterase [9001-08-5] and alkaline phosphatase [9001-78-9] activity, and as a result glycine [56-40-6], serine [56-45-1], and methionine [**63-68-3**] were accumulated in the cochlea. The serum phosphate [14265-44-2] level was increased after I administration, whereas the Ca [7440-70-2] level was significantly decreased.
IT **63-68-3**, biological studies
RL: BIOL (Biological study)
(of ear cochlea, salicylate effect on, **ototoxicity** in relation to)
RN 63-68-3 CAPLUS
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 27 OF 34 USPATFULL on STN
ACCESSION NUMBER: 2003:325350 USPATFULL
TITLE: Methods for treating otic disorders
INVENTOR(S): Ashton, Paul, Boston, MA, UNITED STATES
Guo, Hong, Belmont, MA, UNITED STATES
Smith, Thomas J., Weston, MA, UNITED STATES
PATENT ASSIGNEE(S): Control Delivery Systems, Inc., Watertown, MA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003229333	A1	20031211

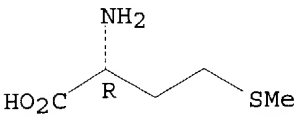
APPLICATION INFO.: US 2003-372636 A1 20030224 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-358831P	20020222 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: ROPES & GRAY LLP, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624
NUMBER OF CLAIMS: 42
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 1470
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB **Loss** of **hearing** can be treated by implanting a sustained-release drug delivery device in the inner ear. The slow delivery of medication from the implanted device to the tissues of the ear, including the inner ear, can treat numerous conditions of the ear while avoiding the side effects associated with systemic administration.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **348-67-4**, D-Methionine
(method for treating otic disorders)
RN 348-67-4 USPATFULL
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L40 ANSWER 28 OF 34 USPATFULL on STN
ACCESSION NUMBER: 2003:232546 USPATFULL
TITLE: Methods for treating **hearing loss**
INVENTOR(S): Kil, Jonathan, Seattle, WA, UNITED STATES
Lynch, Eric D., Lake Forest Park, WA, UNITED STATES
PATENT ASSIGNEE(S): Sound Pharmaceuticals Incorporated. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162747	A1	20030828
APPLICATION INFO.:	US 2003-337251	A1	20030103 (10)

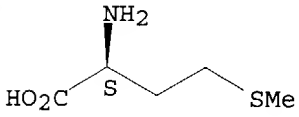
	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-345813P	20020104 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC, 1420 FIFTH AVENUE, SUITE 2800, SEATTLE, WA, 98101-2347
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 811
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB In one aspect, the present invention provides otoprotectant compositions useful for ameliorating **hearing loss**. In some embodiments, the otoprotective compositions comprise at least one

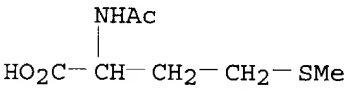
glutathione peroxidase mimic. In some embodiments, the otoprotective compositions comprise at least one glutathione peroxidase mimic and at least one otoprotectant selected from the group consisting of a xanthine oxidase inhibitor and a glutathione or glutathione precursor. In some embodiments, the otoprotective compositions comprise at least one glutathione peroxidase mimic, at least one xanthine oxidase inhibitor, at least one glutathione or glutathione precursor. In another aspect, the present invention provides methods for ameliorating **hearing loss** by administering to a subject an amount of an otoprotective composition that is effective to ameliorate **hearing loss**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **63-68-3**, Methionine, biological studies **1115-47-5**, N-Acetyl-DL-methionine **29908-03-0**
(glutathione peroxidase mimics, xanthine oxidase inhibitors, and glutathione compds. or glutathione precursors for treating **hearing loss**)
RN 63-68-3 USPATFULL
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

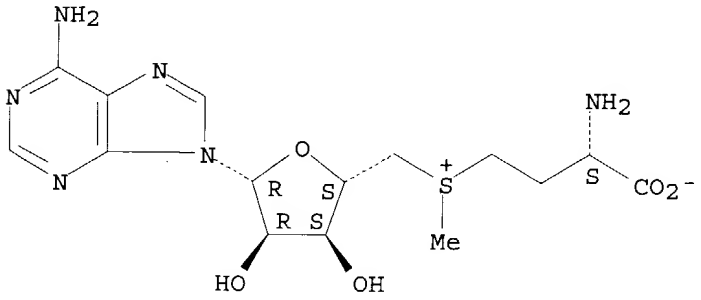


RN 1115-47-5 USPATFULL
CN Methionine, N-acetyl- (9CI) (CA INDEX NAME)



RN 29908-03-0 USPATFULL
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 29 OF 34 USPATFULL on STN
ACCESSION NUMBER: 2002:303979 USPATFULL
TITLE: Use of neomycin for treating angiogenesis-related diseases

INVENTOR(S): Hu, Guo-fu, Brookline, MA, United States
Vallee, Bert L., Boston, MA, United States
PATENT ASSIGNEE(S): Endowment for Research in Human Biology, Inc., Boston, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6482802	B1	20021119	
	WO 9958126		19991118	
APPLICATION INFO.:	US 2000-700436		20001109	(9)
	WO 1999-US10269		19990511	
			20001109	PCT 371 date

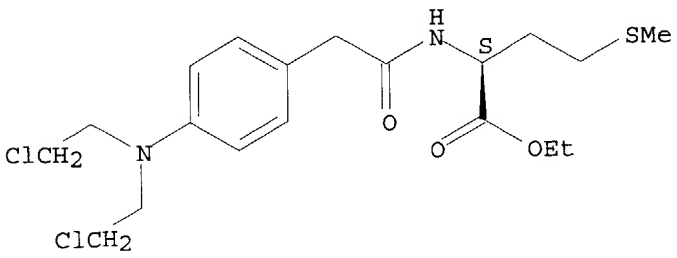
	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-84921P	19980511 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 63
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 2312
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to using neomycin or an analogue thereof as an therapeutic agent to treat angiogenesis-related diseases, which are characterized by excessive, undesired or inappropriate angiogenesis or proliferation of endothelial cells. The present invention is also directed to pharmaceutical compositions comprising (a) neomycin or an analogue and, optionally, (b) another anti-angiogenic agent or an anti-neoplastic agent. The present invention is further directed to a method for screening neomycin analogues having anti-angiogenic activity. A preferred embodiment of the invention relates to using neomycin to treat subjects having such diseases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **3819-34-9**, Phenamet
(neomycin, its analogs and other agents for treatment of angiogenesis-related diseases)
RN 3819-34-9 USPATFULL
CN L-Methionine, N-[[4-[bis(2-chloroethyl)amino]phenyl]acetyl]-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 30 OF 34 USPATFULL on STN
ACCESSION NUMBER: 2001:22263 USPATFULL
TITLE: Therapeutic use of d-methionine to reduce the toxicity of platinum-containing anti-tumor compounds

Searched by Barb O'Bryen, STIC 571-272-2518

INVENTOR(S): Campbell, Kathleen C. M., Glenarm, IL, United States
PATENT ASSIGNEE(S): Southern Illinois University School of Medicine, Springfield, IL, United States (U.S. corporation)

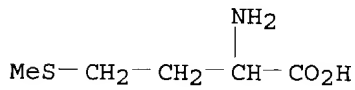
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6187817	B1	20010213
APPLICATION INFO.:	US 1997-942845		19971002 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-27750P	19961003 (60)

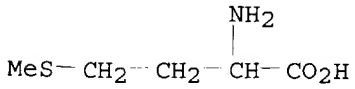
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Goldberg, Jerome D.
LEGAL REPRESENTATIVE: Senniger, Powers, Leavitt & Roedel
NUMBER OF CLAIMS: 36
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 1556
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods of preventing or reducing **hearing** or balance **loss**, damage to ear cells, weight loss, gastrointestinal toxicity, neurotoxicity, alopecia, and prolonging survival in patients undergoing treatment with therapeutically effective amounts of platinum-containing chemotherapeutic agents such as cisplatin are provided. These methods comprise administering an effective amount of a methionine protective agent, such as D-methionine, prior to, simultaneously with, or subsequently to administration of the platinum-containing chemotherapeutic agent. Combinations of these time periods can also be employed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **59-51-8**, Methionine **59-51-8D**, Methionine, derivs.
63-68-3, L-Methionine, biological studies **348-67-4**, D-Methionine **1319-79-5 13073-35-3**, Ethionine
(methionine compd. for redn. of toxicity of platinum-contg. antitumor compds.)
RN 59-51-8 USPATFULL
CN Methionine (9CI) (CA INDEX NAME)

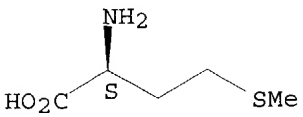


RN 59-51-8 USPATFULL
CN Methionine (9CI) (CA INDEX NAME)



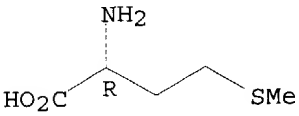
RN 63-68-3 USPATFULL
CN L-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry.

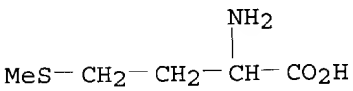


RN 348-67-4 USPATFULL
CN D-Methionine (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



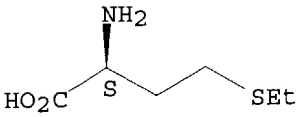
RN 1319-79-5 USPATFULL
CN L-Methionine, hydroxy- (9CI) (CA INDEX NAME)



D1— OH

RN 13073-35-3 USPATFULL
CN L-Homocysteine, S-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 31 OF 34 USPATFULL on STN

ACCESSION NUMBER:	2000:165480 USPATFULL
TITLE:	Communication system including a hearing aid and a language translation system
INVENTOR(S):	Rueda, Valentin Chapero, Erlangen, Germany, Federal Republic of
PATENT ASSIGNEE(S):	Siemens Audiologische Technik GmbH, Erlangen, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6157727		20001205	
APPLICATION INFO.:	US 1998-83049		19980522	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1997-19721982	19970526

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted

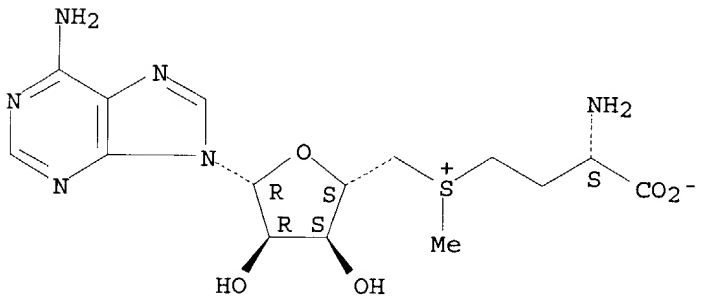
Searched by Barb O'Bryen, STIC 571-272-2518

PRIMARY EXAMINER: Nguyen, Duc
ASSISTANT EXAMINER: Ni, Suhan
LEGAL REPRESENTATIVE: Hill & Simpson
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 222
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A communication system includes a hearing aid and a translation system connected by a communication path. The hearing aid has an input transducer and an output transducer with signal processing circuitry connected therebetween for acting on a signal emitted by the input transducer so as to provide a corrected signal to the output transducer, dependent on the **hearing impairment** of the **hearing** aid user. The translation system is in communication with the hearing aid via the communication path, and signals received by the input transducer in a first language can be supplied to the translation system wherein those signals are converted into speech signals in a second language, and are re-supplied to the hearing aid and are emitted at the hearing aid earphone in the second language.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **29908-03-0**
(detectably labeled, as methyl-donor substrate; cloning and cDNA sequences of novel human and murine farnesyl-directed cysteine carboxymethyltransferases and their uses)
RN 29908-03-0 USPATFULL
CN Adenosine, 5'-[[(3S)-3-amino-3-carboxypropyl]methylsulfonio]-5'-deoxy-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L40 ANSWER 32 OF 34 MEDLINE on STN
ACCESSION NUMBER: 1998186668 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9518561
TITLE: Role of glutathione in protection against noise-induced hearing loss.
AUTHOR: Yamasoba T; Nuttall A L; Harris C; Raphael Y; Miller J M
CORPORATE SOURCE: Kresge Hearing Research Institute, The University of Michigan, 1301 East Ann Street, Ann Arbor, MI 48109-0506, USA.
CONTRACT NUMBER: DC00105 (NIDCD)
SOURCE: Brain research, (1998 Feb 16) 784 (1-2) 82-90. Journal code: 0045503. ISSN: 0006-8993.
PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199804
ENTRY DATE: Entered STN: 19980507
Last Updated on STN: 20000303
Entered Medline: 19980430

ABSTRACT:
A potential mechanism of hearing loss due to acoustic overstimulation is the generation of reactive oxygen species (ROS). ROS not removed by antioxidant defenses could be expected to cause significant damage to the sensory cells of the cochlea. We studied the influence of the antioxidant glutathione (GSH) on noise-induced hearing loss by using l-buthionine-[S,R]-sulfoximine (BSO), an inhibitor of GSH synthesis, and 2-oxothiazolidine-4-carboxylate (OTC), a cysteine prodrug, which promotes rapid restoration of GSH when GSH is acutely depleted. Pigmented female guinea pigs were exposed to broadband noise (102 dB SPL, 3 h/day, 5 days) while receiving daily injections of BSO, OTC, or saline. By weeks 2 and 3 after noise exposure, BSO-treated animals showed significantly greater threshold shifts above 12 kHz than saline-treated subjects, whereas OTC-treated animals showed significantly smaller threshold shifts at 12 kHz than controls. Histologically assessed noise-induced damage to the organ of Corti, predominantly basal turn row 1 outer hair cells, was most pronounced in BSO-treated animals. High performance liquid chromatographic analysis showed that OTC significantly increased cysteine levels, but not GSH levels, in the cochlea. These findings show that GSH inhibition increases the susceptibility of the cochlea to noise-induced damage and that replenishing GSH, presumably by enhancing availability of cysteine, attenuates noise-induced cochlear damage.

CONTROLLED TERM: Check Tags: Female; Support, U.S. Gov't, P.H.S.
Animals
*Antioxidants: TU, therapeutic use
Auditory Threshold
Buthionine Sulfoximine: TU, therapeutic use
Chromatography, High Pressure Liquid
Cochlea: DE, drug effects
Cochlea: ME, metabolism
Cochlea: PA, pathology
Cysteine: ME, metabolism
Evoked Potentials, Auditory, Brain Stem: DE, drug effects
Evoked Potentials, Auditory, Brain Stem: PH, physiology
Glutathione: ME, metabolism
*Glutathione: PH, physiology
Guinea Pigs
Hearing Loss, Noise-Induced: PA, pathology
***Hearing Loss, Noise-Induced: PC, prevention & control**
*Prodrugs: TU, therapeutic use
*Thiazoles: TU, therapeutic use

CAS REGISTRY NO.: 19750-45-9 (2-oxothiazolidine-4-carboxylic acid); **5072-26-4 (Buthionine Sulfoximine)**; 52-90-4 (Cysteine); 70-18-8 (Glutathione)

CHEMICAL NAME: 0 (Antioxidants); 0 (Prodrugs); 0 (Thiazoles)

structures for hits from Medline & Embase printed at end of search

L40 ANSWER 33 OF 34 MEDLINE on STN
ACCESSION NUMBER: 91291461 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2064810
TITLE: Effects of blast wave on methionine-enkephalin-like substance (MES) in guinea pig cochleas.
AUTHOR: Liu W
CORPORATE SOURCE: Xijing Hospital, Fourth Military Medical University, Xian.
SOURCE: Zhonghua er bi yan hou ke za zhi, (1991) 26 (2) 67-9, 124.
Journal code: 16210350R. ISSN: 0412-3948.

PUB. COUNTRY: China
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Chinese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 19910901
Last Updated on STN: 19910901
Entered Medline: 19910812

ABSTRACT:
Methionine-enkephalin-like substance in the Corti's organs of guinea pigs with blast trauma-induced deafness was found to be lowered. The most serious changes occurred in the second turn 7 days after the exposure, MEE was then obviously elevated and almost totally recovered at the 23rd day. The transient changes of MEE suggest a reversible decrease of methionine-enkephalin (ME) which might be a neural transmitter within the olivocochlear bundle. The decrease of ME would possibly injure the resistance of hearing organ to further acoustic stimulation.

CONTROLLED TERM: Check Tags: Female; Male; Support, Non-U.S. Gov't
Animals
*Blast Injuries: ME, metabolism
English Abstract
*Enkephalin, Methionine: AA, analogs & derivatives
Enkephalin, Methionine: ME, metabolism
Explosions
Guinea Pigs
***Hearing Loss, Noise-Induced: ME, metabolism**
Organ of Corti: IN, injuries
*Organ of Corti: ME, metabolism
CAS REGISTRY NO.: **58569-55-4 (Enkephalin, Methionine)**
CHEMICAL NAME: 0 (enkephalin-Met, like substances)

L40 ANSWER 34 OF 34 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
ACCESSION NUMBER: 2003170405 EMBASE
TITLE: Pharmacologic manipulation of the labyrinth with novel and traditional agents delivered to the inner ear.
AUTHOR: Seidman M.D.; Van De Water T.R.
CORPORATE SOURCE: Dr. M.D. Seidman, Department of Otologic Surgery, Henry Ford Medical Center, 6777 W. Maple Rd., West Bloomfield, MI 48322, United States. mseidma1@hfhs.org
SOURCE: Ear, Nose and Throat Journal, (1 Apr 2003) 82/4 (276-300).
Refs: 207
ISSN: 0145-5613 CODEN: ENTJDO
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 011 Otorhinolaryngology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ABSTRACT:
We describe the methodology and rationale behind the delivery of therapeutic medicines to the inner ear. The inner ear has long been impervious to pharmacologic manipulation. This is most likely the result of a protective mechanism called the blood-labyrinth barrier, whose function closely resembles that of the blood-brain barrier. This protective barrier impedes the clinician's ability to treat inner ear diseases with systemically administered medications. Since 1935, otolaryngologists have attempted to manipulate the inner ear with transtympanically injected medicines. Success has varied widely, but medicinal ablation of vestibular function can be achieved in this manner. Unfortunately, the auditory system is also at great risk from any medicine that

is delivered to the inner ear via the middle ear. Over the past 10 years, significant improvements in drug delivery have allowed for more "titratable" treatment, which has reduced (but not eliminated) the risk of permanent hearing loss. In this article, we discuss both novel and time-tested methods of delivering medicines to the inner ear. We also review the classes of medications that alter inner ear function and the attendant risks of such treatments.

CONTROLLED TERM: Medical Descriptors:
*inner ear disease: DT, drug therapy
*inner ear disease: ET, etiology
*inner ear disease: TH, therapy
*drug delivery system
*Meniere disease: DT, drug therapy
*tinnitus: DT, drug therapy
*tinnitus: ET, etiology
*tinnitus: TH, therapy
inner ear
technique
systemic therapy
vestibular function
auditory system
risk factor
middle ear
titrimetry
hearing loss: SI, side effect
ototoxicity: SI, side effect
cochlea fenestra
perception deafness: DT, drug therapy
perception deafness: ET, etiology
cochlea blood flow
drug effect
drug efficacy
auditory threshold shift
drug tissue level
treatment outcome
permeability barrier
blood labyrinth barrier
neuroprotection
noise injury: ET, etiology
Parkinson disease: DT, drug therapy
Alzheimer disease: DT, drug therapy
drug safety
drug tolerability
taste disorder: SI, side effect
vertigo: SI, side effect
headache: SI, side effect
hot flush: SI, side effect
protein restriction
disease association
breast cancer: DT, drug therapy
human
nonhuman
rat
major clinical study
clinical trial
double blind procedure
single blind procedure
animal experiment
controlled study
animal tissue
newborn

article
Drug Descriptors:
aminoglycoside antibiotic agent: AE, adverse drug reaction
aminoglycoside antibiotic agent: DT, drug therapy
aminoglycoside antibiotic agent: PR, pharmaceutics
aminoglycoside antibiotic agent: PD, pharmacology
aminoglycoside antibiotic agent: TY, intratympanic drug administration
streptomycin: AE, adverse drug reaction
streptomycin: DT, drug therapy
streptomycin: PD, pharmacology
gentamicin: AE, adverse drug reaction
gentamicin: DT, drug therapy
gentamicin: PR, pharmaceutics
gentamicin: PD, pharmacology
gentamicin: TY, intratympanic drug administration
corticosteroid: CB, drug combination
corticosteroid: CR, drug concentration
corticosteroid: DT, drug therapy
corticosteroid: PD, pharmacology
corticosteroid: TY, intratympanic drug administration
corticosteroid: PO, oral drug administration
dexamethasone: CB, drug combination
dexamethasone: DT, drug therapy
dexamethasone: PD, pharmacology
dexamethasone: TY, intratympanic drug administration
methylprednisolone: CB, drug combination
methylprednisolone: DT, drug therapy
methylprednisolone: PD, pharmacology
methylprednisolone: TY, intratympanic drug administration
lidocaine: CB, drug combination
lidocaine: DT, drug therapy
lidocaine: PD, pharmacology
lidocaine: TY, intratympanic drug administration
lidocaine: IV, intravenous drug administration
hyaluronidase: CB, drug combination
hyaluronidase: DT, drug therapy
hyaluronidase: PD, pharmacology
hyaluronidase: TY, intratympanic drug administration
antidepressant agent: DT, drug therapy
antidepressant agent: PD, pharmacology
antidepressant agent: PO, oral drug administration
AMPA receptor: EC, endogenous compound
n methyl dextro aspartic acid receptor: EC, endogenous compound
kainic acid receptor: EC, endogenous compound
kynurenic acid: PD, pharmacology
glutamate receptor antagonist: AE, adverse drug reaction
glutamate receptor antagonist: CT, clinical trial
glutamate receptor antagonist: CR, drug concentration
glutamate receptor antagonist: DV, drug development
glutamate receptor antagonist: DT, drug therapy
glutamate receptor antagonist: PD, pharmacology
glutamate receptor antagonist: IV, intravenous drug administration
glutamate receptor antagonist: PO, oral drug administration
memantine: AE, adverse drug reaction
memantine: CT, clinical trial
memantine: DV, drug development
memantine: DT, drug therapy
memantine: PD, pharmacology
caroverine: AE, adverse drug reaction

caroverine: CT, clinical trial
caroverine: CR, drug concentration
caroverine: DV, drug development
caroverine: DT, drug therapy
caroverine: PD, pharmacology
caroverine: IV, intravenous drug administration
AMPA receptor antagonist: AE, adverse drug reaction
AMPA receptor antagonist: CT, clinical trial
AMPA receptor antagonist: CR, drug concentration
AMPA receptor antagonist: DV, drug development
AMPA receptor antagonist: DT, drug therapy
AMPA receptor antagonist: PD, pharmacology
AMPA receptor antagonist: IV, intravenous drug administration
magnesium: CT, clinical trial
magnesium: CR, drug concentration
magnesium: DV, drug development
magnesium: DT, drug therapy
magnesium: PR, pharmaceutics
magnesium: PD, pharmacology
magnesium: PO, oral drug administration
anxiolytic agent: DT, drug therapy
calpain: EC, endogenous compound
leupeptin: DV, drug development
leupeptin: DO, drug dose
leupeptin: PD, pharmacology
leupeptin: IM, intramuscular drug administration
leupeptin: TY, intratympanic drug administration
leupeptin: PO, oral drug administration
allopurinol: PD, pharmacology
superoxide dismutase macrogol: PD, pharmacology
glutathione: EC, endogenous compound
cisplatin: AE, adverse drug reaction
cisplatin: DT, drug therapy
etacrynic acid: AE, adverse drug reaction
etacrynic acid: CB, drug combination
kanamycin: AE, adverse drug reaction
kanamycin: CB, drug combination
methionine: PD, pharmacology
intercellular adhesion molecule 1: EC, endogenous compound
neurotrophic factor: PD, pharmacology

CAS REGISTRY NO.: (streptomycin) 57-92-1; (gentamicin) 1392-48-9, 1403-66-3, 1405-41-0; (dexamethasone) 50-02-2; (methylprednisolone) 6923-42-8, 83-43-2; (lidocaine) 137-58-6, 24847-67-4, 56934-02-2, 73-78-9; (hyaluronidase) 9001-54-1, 9055-18-9; (kynurenic acid) 492-27-3; (memantine) 19982-08-2, 41100-52-1; (caroverine) 23465-76-1, 55750-05-5; (magnesium) 7439-95-4; (calpain) 78990-62-2; (leupeptin) 54577-99-0; (allopurinol) 315-30-0; (glutathione) 70-18-8; (cisplatin) 15663-27-1, 26035-31-4, 96081-74-2; (etacrynic acid) 58-54-8; (kanamycin) 11025-66-4, 61230-38-4, 8063-07-8; (methionine) **59-51-8, 63-68-3**, **7005-18-7**; (intercellular adhesion molecule 1) 126547-89-5

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DICTIONARY FILE UPDATES:   2 JUN 2004  HIGHEST RN 688737-01-1

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http://www.cas.org/ONLINE/DBSS/registryss.html

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               (63-68-3/RN)
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               (58569-55-4/RN)
             1 5072-26-4
               (5072-26-4/RN)
L41          4 59-51-8 OR 63-68-3 OR  7005-18-7 OR  58569-55-4 OR   5072-26-4
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Structures for Medline & Embase hit RNs

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L41  ANSWER 1 OF 4  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   58569-55-4  REGISTRY
CN   1-5-Adrenorphin (human) (9CI)  (CA INDEX NAME)
OTHER CA INDEX NAMES:
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OTHER NAMES:
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CN   105: PN: US20030119021 SEQID: 92 unclaimed sequence
CN   12: PN: US6258556 SEQID: 12 unclaimed sequence
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CN   46: PN: US6017496 PAGE: 120 claimed protein
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CN   5-Methionine enkephalin
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CN 7: PN: WO0130371 TABLE: 1 unclaimed sequence
CN 9: PN: WO03061683 FIGURE: 1 unclaimed sequence
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CN Human .beta.-endorphin(1-5)
CN L-Methionine, L-tyrosylglycylglycyl-L-phenylalanyl-
CN L-Methionine-enkephalin
CN Lupex
CN Met-enkephalin
CN Met5-enkephalin
CN Methionine enkephalin
CN Methionyl-enkephalin
CN NSC 374896
CN Opioid growth factor
CN Peptid-M
CN PN: US5961923 PAGE: 135 claimed protein
CN Porcine .beta.-endorphin 1-5
CN Tyr-Gly-Gly-Phe-Met-OH
FS PROTEIN SEQUENCE; STEREOSEARCH
MF C27 H35 N5 O7 S
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, NAPRALERT, PHAR, PROMT, PROUSDDR, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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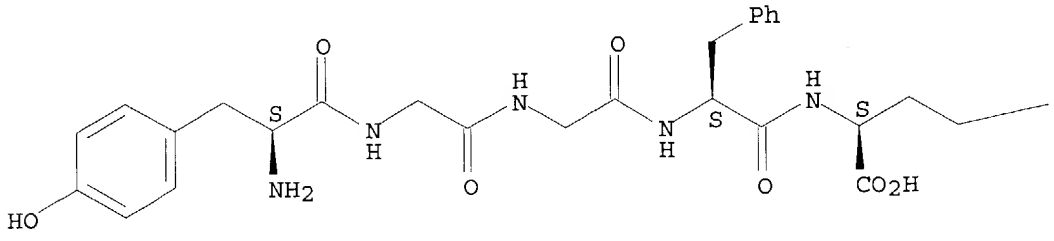
RELATED SEQUENCES AVAILABLE WITH SEQLINK

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5549 REFERENCES IN FILE CA (1907 TO DATE)
93 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5551 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L41 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **5072-26-4** REGISTRY
CN Butanoic acid, 2-amino-4-(S-butylsulfonimidoyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Sulfoximine, 3-amino-3-carboxypropyl butyl (6CI)
CN Sulfoximine, S-(3-amino-3-carboxypropyl)-S-butyl- (7CI, 8CI)
OTHER NAMES:
CN Buthionine sulfoximine
CN Butionine sulfoximine
CN DL-Buthionine (S,R)-sulfoximine
CN NSC 381100
FS 3D CONCORD
DR 71765-30-5
MF C8 H18 N2 O3 S
LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IMSRESEARCH, IPA, MEDLINE, MRCK*, NIOSHTIC, PROMT, PROUSDDR, RTECS*, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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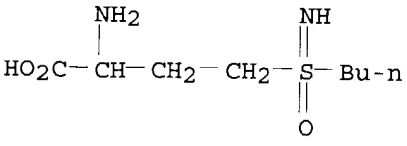

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6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
550 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L41 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **63-68-3** REGISTRY
CN L-Methionine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Methionine, L- (8CI)
OTHER NAMES:
CN (S)-2-Amino-4-(methylthio)butanoic acid
CN .alpha.-Amino-.gamma.-methylmercaptobutyric acid
CN .gamma.-Methylthio-.alpha.-aminobutyric acid
CN 2-Amino-4-(methylthio)butyric acid
CN 395: PN: US20030049618 SEQID: 395 claimed protein
CN Acimethin
CN Butanoic acid, 2-amino-4-(methylthio)-, (S)-
CN Cymethion
CN h-Met-oh
CN L-(-)-Methionine
CN L-.alpha.-Amino-.gamma.-methylthiobutyric acid
CN L-Homocysteine, S-methyl-
CN l-Methionine
CN Methionine
CN NSC 22946
CN Protein (human clone US2003/0049618-SEQID-395 secreted protein sequence homolog)
CN S-Methionine
FS STEREOSEARCH
DR **7005-18-7, 24425-78-3**
MF C5 H11 N O2 S
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
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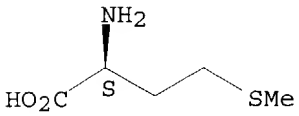
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.



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34667 REFERENCES IN FILE CA (1907 TO DATE)
730 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
34727 REFERENCES IN FILE CAPLUS (1907 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L41 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **59-51-8** REGISTRY
CN Methionine (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN DL-Methionine
CN Methionine, DL- (8CI)
OTHER NAMES:
CN (.+-.)-Methionine
CN .alpha.-Amino-.gamma.-methylmercaptobutyric acid
CN Acimetion
CN Amurex
CN Banthionine
CN Cynaron
CN DL-2-Amino-4-(methylthio)butyric acid
CN Dyprin
CN Lactet
CN Lobamine
CN Meonine
CN Meprom M 85
CN Methilanin
CN Metione
CN Neston
CN NSC 9241
CN Pedameth
CN Racemethionine
CN Urimeth
FS 3D CONCORD
MF C5 H11 N O2 S
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIOGENES, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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(Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
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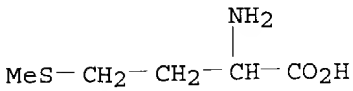

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3002 REFERENCES IN FILE CA (1907 TO DATE)
64 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3004 REFERENCES IN FILE CAPLUS (1907 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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